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# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/606,873

Filing Date: June 26, 2003

Appellant(s): BOSKO, ROBERT S.

Christopher L. Makay For Appellant

**EXAMINER'S ANSWER** 

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This is in response to the appeal brief filed 9-6-06 appealing from the Office action mailed 4-6-06.

## (1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

#### (2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

#### (3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1, 2, 5, 8, 36, 37, and 40.

Claims 2, 6, 7, 38, 41, and 42 have withdrawn from consideration as not directed to the elected species.

#### (4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

# (5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

## (6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: the statement should read "Whether claims 1, 2, 5, 8, 36, 37, and 40 are patentable over Hisada in view of McGowan".

# (7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

## (8) Evidence Relied Upon

6,190,557 HISADA ET AL 2-2001

6,562,246 MCGOWAN 5-2003

## (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 5, 8, 36, 37, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over in Hisada et al view of McGowan.

With respect to claim 1, Hisada et al discloses a method of cleansing a filter 1 including passing water from a water source through a filter producing filtered water (see lines 6-18 of col. 14), providing a source of purified water (e.g., filtered water from the permeate side of the reverse osmosis membrane, see FIG. 6 and lines 35-49 of col. 14), the purified water having a lower total dissolved solids reading than the water being filtered since a reverse osmosis filter can remove up to 99% dissolved minerals from water, and exposing the filter to the purified water (e.g., via backwashing as shown in

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FIG. 6 with the permeate). Hisada et al fail to specify delivering the filtered water to an end use device. McGowan discloses the concept of delivering a filtered fluid to an end use device in the form of "outside systems" via conduit 26 and valve 36 (see lines 15-18 of col. 4) and teaches that such a step enables use of the filtered water. It would have been obvious to have modified the method of Hisada et al so as to have included the step of delivering the filtered water to an end use device as suggested by Hisada et al in order to make use of the filtered water.

Concerning claim 2, Hisada et al discloses a filter cartridge 1.

As to claim 5, Hisada et al discloses purified water having a total dissolved solids reading of at least 50% less than the water being filtered since a reverse osmosis filter can remove up to 99% dissolved minerals from water.

Concerning claim 8, Hisada et al discloses backwashing the filter with purified water (e.g., permeate, see FIG. 6 and lines 35-49 of col. 14).

With respect to claim 36, Hisada et al disclose a method for back flushing a filter 1 including flowing water from a water source 51 (see FIG. 4) through a primary flowpath in a filtered flow path 52, providing a source of purified water from the filter having a lower total dissolved solids reading that the water being filtered (e.g., the purified water being filtered water from the reverse osmosis filter 1 that can remove up to 99% of the total dissolved solids from water), providing a secondary flow path allowing purified water into the filtered flow path (see FIG. 6), and flowing the purified water in the secondary flow path, wherein the secondary flow path allows the purified water to flow backwards through the filter for a predetermined interval to remove or

dissolve filtered media or unclog a filter in the primary flow path (see FIG. 6. and lines 35-49 of col. 14). Hisada et al fails to specify the steps of delivering filtered water to an end use device, a) switching an inlet valve, a drain valve, and a flush valve in a filtered flow path from a primary flow path used for dispensing operations to a secondary flow path, therein and c) switching the inlet valve, the drain valve, and the flush valve from the secondary flow path to the primary flow path to resume the delivery of filtered water to an end use device. McGowan discloses a method of backwashing a filter including the steps of delivering filtered water to an end use device in the form "outside systems" (see lines 15-18 of col. 4, a) switching an inlet valve 22, a drain valve 46, and a flush valve 36 42 in a filtered flow path from a primary flow path to a secondary flow path. therein and c) switching the inlet valve 22, the drain valve 46, and the flush valve 36 42 from the secondary flow path to the primary flow path to resume the delivery of filtered water to the end use device (see FIG. 1.). McGowan teaches that such a method allows use of the filter water as well as operation of the filter system from a single pneumatic control panel 24. It would have been obvious to have modified the method of Hisada et al so as to have included the method steps of switching an inlet valve, a drain valve, and a flush valve as suggested by McGowan in order to enable use of the filtered water as well as operation of the filter system from a single pneumatic control panel.

Concerning claim 37, McGowan discloses repeating steps c-e to provide continued cleansing of the filter medium (see from line 60 of col. 3 to line 3 of col. 5).

As to claim 39, Hisada et al discloses purified water having a total dissolved solids reading of at least 50% less than the water being filtered since a reverse osmosis

filter can remove up to 99% dissolved minerals from water.

Concerning claim 40, Hisada et al discloses backwashing the filter with purified water (e.g., permeate, see FIG. 6 and lines 35-49 of col. 14).

#### (10) Response to Argument

Applicant argues in the first full paragraph of page 5 and the second full paragraph of page 10 of the brief that the examiner inappropriately uses the terms "filter" and "membrane" interchangeably in the rejections of claims 1 and 36, however, it is held that the term "filter" is broad enough to encompass the term "membrane" in the case that the filter can remove particles on a molecular level.

Applicant argues in the second full paragraph of page 5 that filters are only capable of removing suspended particles over a predetermined size range and do not remove dissolved solids in a fluid, however, it is held that a filter in the form of a reverse osmosis membrane filter such as the type disclosed by Hisada is capable of both removing dissolved and un-dissolved solids from water. Applicant should note that "particles over a predetermined size range" is broad enough to read upon particles in the form of dissolved solids.

Applicant argues in the paragraph spanning pages 6-7 and the first full paragraph of page 8 that the combination of Hisada and McGowan fails to read on applicant's invention as claimed in instant claims 1 and 36 since Hisada delivers "purified water" as opposed to "filtered water" to an "end use device", however, it is held that the combination reads on claim 1 since "purified water" can be considered "filtered water" produced by the reverse osmosis membrane filter disclosed by Hisada. Applicant's

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argument that the instant invention does not alter the total dissolved solids reading of filtered water delivered to the end use device fails to apply since such a limitation fails to appear anywhere in the instant specification or claims 1 and 36. The most relevant disclosure concerning the definition of term "filter" is the section "Description of the Related Art" on page 2 of the instant specification which states:

"Water quality issues may be addressed through water treatment equipment that employ methods for purifying water, some in conjunction with others, to obtain a desired grade or level of water quality. Example water treatment methods include reverse osmosis, deionization, and steam generation. Water treatment equipment employing these methods typically require a filter in line prior thereto to remove particles up to a pre-selected range."

Accordingly, the description of the related art does not positively define the term "filter" as excluding structures that are capable of removing dissolved solids since the applicant's related art definition of a filter being a structure that can "remove particles up to a pre-selected range" is broad enough to incorporate filters capable of removing particles that are small enough to be in a dissolved state within water.

Applicant argues on page 7-8 of the brief that the U.S. Manual of Classification specifies a difference between the terms "filters" and "membranes", however, the manual clearly implies that a membrane is a form of filter that can retain dissolved or suspended matter from a liquid (see the definition of 210/650, "Filtering through a membrane"). Likewise, 210/348 includes patents claiming membrane filters (see U.S. Patent 6,669,905).

# (11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

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